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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/31/2001

Coke Reed

F.11188

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09/11/2006

Keith D. Nowak
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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,462

Applicant(s)

REED ET AL.

Examiner

Phuongchau Ba Nguyen

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2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 42, 43, 49, 50, 53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 42, 43, 49, 50 and 53-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claim 51 is objected to because of the following informalities: Claim 51 depended on a canceled claim 6. Claim 51 should have been canceled as well.

Appropriate correction is required.

Claim Rejections – 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2–4, 42–43, 49–50, 53–54 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayter (5,577,035).

Regarding claim 53,

Hayter (5,577,035) discloses an interconnect structure (switch 1 – figs.1&4) having at least two input ports A and B (ports 26, fig.4), a plurality of

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output ports (ports 27, fig.4) and a message MA (data) at input port A (port 26), wherein a decision (a request for transmission at output port 27) to inject all or part of message MA (request to send data to output ports 27) into the interconnect structure (switch 1) depends at least in part on the arrival of one or more messages at input port B (fig.4, col.4, line 47–col.5, line 23).

Regarding claim 2,

Hayter (5,577,035) discloses an interconnect structure (switch 1–fig.1) having a plurality of input ports (ports 5–7) including an input port A (port 5) and a plurality of output ports (ports A–Z) including an output port X and all or part of a message MA (data, fig.1) arriving at input port A, wherein a decision (granting decision to send data to an available output port via backward arrow–fig.1, or 39–40 in fig.4) to inject message MA into the interconnect structure (switch 1–fig.1) is based at least in part on logic (the output port is available for transmission, see fig.4, col.5, lines 9–18) associated with output port X (port 27–fig.4).

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Regarding claim 3,

Hayter (5,577,035) discloses further an input port B and a message MB at input port B wherein the logic (available output port—fig.4) at output port X bases in part the decision to inject message MA into the interconnect structure on information about message MB (col.5, lines 9–17).

Regarding claim 42,

Hayter (5,577,035) discloses a method for sending a message MA (data) through an interconnect structure (switch 1—fig.4), said interconnect structure having at least two input ports A and B (ports 26—fig.4), the message MA arriving at input port A, the method comprising the steps of:

monitoring the arrival of one or more messages at input port B (mechanism for handling a bandwidth request, fig.4, col.4, line 32–col.5, line 17); and

basing a decision (granting decision for transmission to an available output port) to inject all or part of message MA into the interconnect structure

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(switch 1), at least in part on the monitoring of messages arriving at input port B (fig.4, col.4, line 47–col.5, line 23).

Regarding claim 43,

Hayter discloses a method for sending a message MA (data) through an interconnect structure (switch 1), said interconnect structure having an input port A (port 26) and a plurality of output ports (ports 27–fig.4) including an output port X, and all or part of message MA arriving at input port A, the method comprising the steps of:

monitoring logic associated with output port X (mechanism for handling a bandwidth request, fig.4, col.4, line 32–col.5, line 17); and

basing a decision (granting decision for transmission at an available output) to inject message MA (data) into the interconnect structure (switch 1), at least in part on information concerning a message MB targeted for X (the available output) and entering the interconnect structure (switch 1) at an input other than A (col.4, line 47–col.5, line 23)

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Regarding claim 49,

Hayter discloses wherein the message MA is sub-divided into segments (input data into different buffers 28–30) and a decision (granting decision for transmission to an available output port) to inject a plurality of segments of MA into the interconnect structure (switch 1) depends at least in part on logic (the available bandwidth at an output) associated with output port X (col.4, line 28–col.5, line 18, see fig.4).

Regarding claim 50,

Hayter discloses wherein the message MA and the message from input port B (data input to input ports 26, fig.4) are scheduled to enter (scheduled as requested upon granting the available output port) the interconnect structure (switch 1) in such a way that data from message MA and data from a message at input port B enter output port X concurrently (fig.1, col.3, lines 19–37).

Regarding claim 54,

Hayter discloses wherein the message MA (data input at input port 26–fig.4) is subdivided into segments (to different buffers 28–30) and a decision (granting decision for transmission to an available output port) to inject a plurality of the segments of MA depends at least in part on the arrival of one or more messages at input port B (col.4, line 47–col.5, line 18).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park (6,400,685) in view of Hayter (5,577,035).

Regarding claim 4,

Hayter (5,577,035) discloses messages from different sources (col.4, lines 38–40) are targeted to output port 27 (fig.4), corresponding to (wherein messages MA and MB are targeted for output port X)

Claim Rejections – 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayter in view of Manning (5,956,342).

Regarding claim 5,

Hayter discloses all the claimed limitations, except (1) wherein the timing of the injection of MA into the interconnect structure depends at least in part on the arrival of one or more messages at input port B. However, in the same field of endeavor, Manning (5,956,342) discloses the bandwidth arbiter controlling switch fabric interconnection dynamically schedules momentarily unused bandwidth see col.3, lines 51–63 (corresponding to (1)). Therefore, it would have been obvious to an artisan to apply Manning's teaching to Hayter's system with the motivation being to resolve multipoint to point bandwidth contention.

Response to Arguments

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

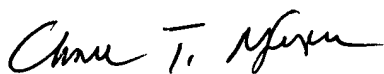
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuongchau Ba Nguyen
Examiner
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